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## CONGRESS IN SESSION

by Cynthia Smith

- **H. R. 1354 To eliminate the Department of Agriculture and certain agricultural programs, to transfer other agricultural programs to an agribusiness block grant program and other Federal agencies, and for other purposes.**

Introduced March 29, 1995, by Donald Payne (D-NJ) and referred to the Committee on Agriculture, as well as the Committee on Government Reform and Oversight, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned. This act may be cited as the "Agriculture Modernization Act of 1995."

Of the functions that the Secretary of Agriculture exercised before the effective date of this act (including all related functions of any officer or employee of the Department of Agriculture), there are transferred to the Secretary of Commerce all functions of: the Consolidated Farm Service Agency for administration through the agribusiness block grant program established under title II, except as otherwise provided in this section; the Agricultural Research Ser-

*(Legislation cont'd p.11)*

### ALSO IN THIS ISSUE...



# Arguments for Single-Caging of Rhesus Macaques: Are They Justified?


*by*
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Human primates are social by nature and strive best in the supportive environment of compatible conspecifics. Being forcefully deprived of companionship is therefore one of the most dreaded punishments. Nonhuman primates share the same basic "social needs" (36) as human primates do, and sociality is central to their very survival (2). Like human primates, nonhuman primates may become mentally disturbed when chronically kept in social isolation, and they often express their distress in abnormal behavior patterns (cf. 6).

Despite the inherent ethical problems related to social deprivation, social housing of nonhuman primates is seen as a husbandry priority only by a minority of primatological investigators (14). Thus, single-caging is still the prevailing housing condition for laboratory primates (13, 30). The regulatory "safeguard" (15) prescribing social housing (36) is apparently not very effective. The following arguments are often brought forward in justification of the traditional single-caging:

1. The animals are too aggressive to be socialized with each other.
2. Socially housed animals are at greater health risk than individually housed animals. They suffer distress from being constantly exposed to companionship. Subordinate



Photo by K. Bayne

animals become undernourished because of food competition.

3. Pair-housed animals become bored of one another.

4. Social housing interferes with research protocols.

The present paper examines the justification of these notions as they pertain to the most common laboratory nonhuman primates, i.e., rhesus macaques (*Macaca mulatta*).

Numerous studies have indeed shown that unlike in other nonhuman primate species (e.g., *Pan troglodytes*, 7; *Cebus apella*, 1; *Saimiri sciureus*, 12) group formation and subsequent group housing of rhesus macaques are likely to be associated with serious problems related to aggressive intolerance (e.g., 5, 10). Alternative pair formation and subsequent pair-housing techniques have therefore been developed for rhesus macaques (17, 18, 21, 4) in order to avoid the risk attendant on group housing. How successful are these techniques?

- No noteworthy aggression was observed when either 64 or 104 juveniles were transferred from single-caging to heterosexual and isosexual pair-housing conditions for 1 year (33, 31).
- Transferring 65 adult females and 13 adult males from single- to pair-housing arrangements with infants for 1 year was successful in 93 percent of cases (94 percent of female/infant pairs, 92 percent of male/infant pairs). Pairs were split due to aggression in 3 percent of cases. Inadequate food sharing and "teasing" accounted for the other 4 percent of pair incompatibility (31).
- Transferring 154 adult females and 40 adult males from single-caging to continuous isosexual pair-housing conditions with each other for 1 year was successful in 87 percent of cases (88 percent of female pairs, 80 percent of male pairs). Partners were separated in 6 percent of cases because one of them seriously aggressed the other. Inadequate food sharing or depression accounted for the remaining 7 percent of partner incompatibility (31).
- Transferring 24 previously single-caged adults of both sexes to uninterrupted isosexual pair-housing conditions for 3 to 7 years was associated with pair incompatibility in 12 percent of cases, with serious aggression accounting for 3 percent. There were no indications that long-term compatibility of male pairs was less than that of female pairs, that partners did not readily adjust to new companions, or that the presence of offspring jeopardized the compatibility of companions (32).

(Photo by V. Reinhardt)

These findings indicate that "the conventional wisdom that unfamiliar adult macaques are more likely to fight than to coexist peacefully" (11) does not hold true for the most common and, supposedly, most aggressive species, i.e., *Macaca mulatta*. The published information available provides evidence that no unreasonable risk of aggressive intolerance accrue when previously single-caged individuals are subjected to careful pair formation and subsequent permanent pair-housing protocols (c.f. 27). Pair housing effectively avoids the typical aggression problems of group housing.

The health risk associated with pair housing as compared to conventional single housing was assessed in three independent studies. In no case was clinical morbidity, as measured in the rate of veterinary treatment, higher in pair-housed than in single-housed subjects (23, 4, 35). In a study of 96 monkeys transferred from single- to compatible pair-housing conditions, subjects required veterinary treatment once every 909 days while singly caged, versus once every 2,104 days while pair housed (35). This suggests that pair housing may be an effective housing strategy not only from the behavioral but also from the veterinary point of view (35).

Three separate investigations examined the stress status of compatible pair-housed versus single-housed animals. Serum cortisol concentrations (26, 33) and immune stress response (4) of subjects did not differ in both housing conditions. Stress indices of subordinate animals were not higher than those of their dominant partners (26, 4).

Rather than being a source of distress, the compatible companion may function as a source of security (e.g., 8). This is particularly relevant for the experimental context in which the presence of a familiar conspecific functions as a buffer against environmental stress that the single-caged individual is lacking (21). Needless to say that scientific data collected from such a "stress-protected" subject are less confounded than data collected from a socially deprived research subject (cf. 3). The comforting rather than distressing effect of companionship can also be inferred from the fact that individuals afflicted with gross behavioral disorders often abandon their neurotic activities after being provided with a compatible cage mate (18, 19, 11).

Three independent studies failed to find a negative impact of pair

*(Caging cont'd p.7 )*

# Defining an Acceptable Endpoint in Invasive Experiments

*by*
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The following article is from an address presented at the annual conference of the Canadian Association for Laboratory Animal Science/ L'association Canadienne pour la Technologie des Animaux de Laboratoire (CALAS/ACTAL). The meeting was held in Montreal, Quebec, on June 15, 1993. It originally appeared in the October 1993 issue of the CALAS/ACTAL Newsletter (Vol. 27, #5).

## Abstract

Animal Care Committees reviewing research protocols often demand an earlier endpoint to an experiment for humane reasons. Scientists support the efforts to reduce potential pain and suffering, but may be reluctant to adopt earlier endpoints unless these can be objectively determined and will not invalidate the experimental data being collected. In this presentation, a framework for objectively setting endpoints that may be scientifically supported will be presented. Crucial to this exercise is the involvement of all persons directly working with the animals, and their ability to observe the animals and make accurate assessments of their condition.

## Introduction

We have an obligation to minimize the potential pain and suffering experienced by an animal in the course of biomedical research. That sentiment is explicitly stated in ethical position statements of a number of organizations concerned with experimental animal use. For example, the Canadian Council on Animal Care (CCAC) *Ethics of Animal Investigation* (5) document says:

"*Animals must not be subjected to unnecessary pain or distress. The experimental design must offer them every practicable safeguard, whether in research, in teaching, or in testing procedures; ...*"

Further, with respect to humane endpoints, the CCAC document says:

"*An animal observed to be experiencing severe, unrelievable pain or discomfort should be immediately killed, using a method providing initial rapid unconsciousness.*"; and, "*Studies such as toxicological and biological testing, cancer research and infectious disease investigation may, in the past, have required continuation until the death of the animal. However, in the face of distinct signs that such processes are causing irreversible pain or distress, alternative endpoints should be sought to satisfy both the requirements of the study and the needs of the animal.*"

One of the general ethical statements that has long been cited as guiding us to a more humane use of animals in research is the now famous 3Rs tenet of Russell and Burch (15)--**Replacement** (of animals with other, non-sentient material), **Reduction** (of numbers of animals used), and **Refinement** (of technique "to reduce to an absolute minimum the amount of distress imposed on those animals that are still used."). Their book--*The Principles of Humane Experimental Technique* (15)--was a landmark publication, and still deserves to be consulted for its comments on the humane use of animals.

Although our ethical responsibilities seem quite clearly stated, these pronouncements do not answer the very important questions:

- How do we choose the endpoint that satisfies these principles?
- Where do we draw the line?
- How do we "refine" our experiments through establishing earlier, more humane endpoints to invasive animal experiments, particularly those that may have death as an endpoint?

This presentation will attempt to draw a framework for selecting an endpoint that reduces the potential for animal pain and suffering, and that hopefully will satisfy the experimental design requirements for objective evaluation.

## Types of Studies Where Death of the Animal May be the Endpoint

There are several types of studies where the death of the animal may be the endpoint as part of the experimental design. These would include: regulatory toxicology, diagnostic toxicology, acute toxicity studies in research, infectious disease studies, microorganism virulence challenge studies, vaccine efficacy trials, cancer research, cancer treatment evaluation, etc.

In some research investigations pain and suffering may unavoidably be part of the disease or condition being studied (e.g., some models of human diseases such as arthritis or cancer, and studies on pain, etc.).

Also, in some experimental animal uses, any pain and suffering is an unwelcome accompaniment to the animal use (e.g., monoclonal antibody production, Freund's adjuvant use in antibody production, etc.). In these latter cases humane endpoints are relatively easy to define (e.g., limiting the volume and number of times a mouse with ascites is collected), and guidelines pertaining to these procedures already exist (6).

In all of these research endeavors, our responsibilities include the prevention and minimization of any unnecessary pain and distress for the animals. As the CCAC noted in *Ethics of Animal Investigation*, in the past the death of the animal may have been the endpoint in some experiments. Although quite conservative in tone, this CCAC statement acknowledges that pain and suffering may occur well before the animal is moribund.

In fact, the animal in a moribund state may be past suffering (and actual-

ly comatose). The observations that suggest an animal is "moribund" are quite clear. Before the animal gets to the point of being "moribund," however, our best judgements, based on the accuracy of our observations of the animal, will help set the earlier endpoint and thereby reduce the potential pain and suffering the animal is experiencing. Thus it is incumbent on us to continually refine our skills at seeking earlier endpoints for such experiments.

## A Framework for Selecting an Earlier Endpoint

There are several considerations in arriving at the objective assessment of pain and suffering, and translating that into the appropriate endpoint in a given experiment. Firstly, we must improve our skills at observing the animals and assigning some objective values to the observations we make (of animal behavior and physiology). Secondly, we need to know, in any given study, which observations are the most significant indicators of animal pain and suffering. Thirdly, we must have scientific acceptance of these measurements.

## Objectively Assessing Signs and Symptoms

With respect to the first point, the work of Morton and Griffiths in 1985 can be considered a landmark publication. They presented a set of criteria for assessing pain, distress, and discomfort in laboratory animals based on evaluating five aspects of an animal's condition. Those five aspects are: a) changes in body weight (including levels of food and water intake); b) external appearance; c) measurable clinical signs (e.g., changes in heart rate, in respiratory rate and nature); d) unprovoked behaviour; and e) behavioural responses to external stimuli. In each of these categories, a rating of 0 (normal or mild) to 3 (severe changes from normal) is made, the cumulative rating indicating increasing deviation from the normal in the animal. The cumulative rating is interpreted as an indication of increasing pain, distress, and suffering. Table 1 presents this proposed scoring system in a checklist format.

The British Association of Veterinary Teachers and Research Workers (AVTRW) (16) has developed a set of guidelines for the recognition and assessment of pain in animals to assist scientists in their compliance with the British Animals (Scientific Procedures) Act of 1985. Specific information on the behavioral and physiological changes in the various animal species that may indicate the presence of pain are published (16, 19). The report of a committee of the British Laboratory Animal Science Association (19) includes an assessment of the severity of a wide variety of procedures performed on animals in the course of biomedical research. A number of other publications are also available to help identify the signs and symptoms of experimental animal pain, distress, and suffering (1, 2, 3, 4, 9, 18).

The publications of Morton and Griffiths (13) and the British Association of Veterinary Teachers and Research Workers (16) focus on an important matter--that of trying to make more objective assessments of the pain, distress, and suffering that may occur in an animal in the course of biomedical research.

In addition to general signs of pain and distress, there are the specific signs and symptoms related to the condition being studied. For most animal models of disease, information on the organ system(s) affected, the specific symptoms, the progression of symptoms, the time course of the disease condition, and the expected lesions, is available from the general veterinary and laboratory animal science literature. Such specific signs and symptoms must also be used in the overall evaluation of the animal's condition on which selection of the endpoint will be based.

## Identifying Significant Indicators of Pain and Suffering

The next problem is deciding, in any given animal model, which of the many possible observations and measurements are the most important or sig-

**Table 1. Qualifying Pain / Distress / Suffering**

| Variable | Score |
|---|---|
| **Body Weight Changes**<br>0 Normal<br>1 < 10 percent weight loss<br>2 10-15 percent weight loss<br>3 > 20 percent weight loss | |
| **Physical Appearance**<br>0 Normal<br>1 Lack of grooming<br>2 Rough coat, nasal/ocular discharge<br>3 Very rough coat, abnormal posture, enlarged pupils | |
| **Measurable Clinical Signs**<br>0 Normal<br>1 Small changes of potential significance<br>2 Temperature change of 1-2° C, cardiac and respiratory rates increased up to 30 percent<br>3 Temperature change of > 2° C, cardiac and respiratory rates increased up to 50 percent, or markedly reduced | |
| **Unprovoked Behavior**<br>0 Normal<br>1 Minor changes<br>2 Abnormal, reduced mobility, decreased alertness, inactive<br>3 Unsolicited vocalizations, self mutilation, either very restless or immobile | |
| **Behavioral Responses to External Stimuli**<br>0 Normal<br>1 Minor depression/exaggeration of response<br>2 Moderately abnormal responses<br>3 Violent reactions, or comatose | |
| TOTAL | |

Adapted from: Morton, D.B. and P.H.M. Griffiths (1985). *Veterinary Record* 116: 431-436.

nificant indicators of the condition of the animal, or perhaps more importantly from the scientist's perspective, which are indicators of an irreversible deteriorating condition of the animal. This is not an easy task, since a large number of different behavioral observations and physiological measurements are possible. Two papers dealing with the adjuvant-induced arthritis model in the rat provide insight into the difficulties in finding / choosing the right observations (4, 9).

To determine which behaviors in arthritic rats correlated with progression of the induced arthritis, Butler et al. (4) conducted detailed behavioral studies. This was done by measuring the frequency of a wide range of specific behaviors with the use of videotape computer analysis. The time arthritic rats spent performing 12 specific behaviours was measured. These behaviours include: rearing, sniffing, food-hoarding, grooming, scratching, freezing (arresting), resting, sleeping, running, climbing, eating and drinking. Although changes in the frequency of several behavior patterns were found (decreased rearing, running, eating, drinking and climbing; increased resting, freezing, scratching), the conclusion was that of all these changes in behavior, **increased scratching** was the most significant behavioral change that tied in with developing arthritis, indicating chronic pain.

Such behavioral evaluations (4, 9) are research projects in themselves, involving many hours of technical time, with expensive monitoring and analytical equipment. It may be unrealistic to demand a similar degree of preliminary behavioral evaluation each time an animal-based research program is begun where the potential for pain and distress are high (mice in a liver cancer research program, for example). Nevertheless, conducting a pilot study to establish the observational criteria to be used to set the endpoint may be a very useful exercise, particularly at the onset of a research program that may be ongoing.

## Scoring of Significant Behavioral and Physiological Observations to Set Endpoints

As noted above, information on the general signs of pain, distress and suffering for the various animal species commonly used in biomedical research are readily available (1, 2, 3, 4, 9, 16, 18). Of these, significant weight loss may be one of the more important signs of deterioration in the animal's condition (reflecting a change in food and water consumption).

For some specific areas of biomedical research, particularly in cancer research, more detailed criteria for selecting the endpoint have been proposed by Montgomery (11, 12), Redgate, Deutsch and Boggs (14), and the United Kingdom Coordinating Committee on Cancer Research (UKCCCR) (20).

Table 2 presents some specific clinical abnormalities that are useful indicators in cancer research and toxicologic studies (11, 12). Table 3 presents some of the endpoint criteria, physiological, behavioral and pathological, that Montgomery (12) identified for euthanasia of moribund animals.

One of the scientific concerns about arbitrarily establishing an early endpoint, particularly in cancer therapy studies, is that early euthanasia may alter longevity or survival data which are an important indicator of "successful" treatment. For example, the "successful" treatment of cancer in a group of rats which resulted in them living a month longer, might be masked by early euthanasia based only on clinical observations. In such cases, finding the signs of disease and distress that point to an irreversible deterioration in the animal is important. Redgate, Deutsch and Boggs (14), in their examination of a brain tumor model in a rat (9L gliosarcoma in Fischer 344 rats), concluded that a weight-loss period of more than 6 days had a high correlation with irreversible progression to death, regardless of which treatment group was studied. In this model then, an endpoint that satisfied the scientific concerns could be established at the end of a 6-day period of consecutive weight loss (which in this case was about 10 days before death of the animals).

The *UKCCCR Guidelines for the Welfare of Animals in Experimental Neoplasia* (20) contain some general recommendations for endpoints, e.g., when tumor size exceeds 10 percent of body weight, or if weight loss exceeds 20 percent (these would be in the maximum score category in the Morton and Griffiths proposal, indicating severe negative effect on the animal).

Siems and Allen (17) recommended that the endpoint in a disease model (chronic infection with systemic *Candida albicans*) be set at (among

Table 2. Selected Clinical Observations Used in Cancer Research and Toxicological Studies

| Parameter | What to Look for |
|---|---|
| General Appearance | Dehydration, decreased body weight, missing anatomy, abnormal posture, hypothermia, fractured appendage, swelling, tissue masses, prolapse, paraphimosis |
| Skin and fur | Discoloration, urine stain, pallor, redness, cyanosis, icterus, wound, sore, abscess, ulcer, alopecia, ruffled fur |
| Eyes | Exophthalmos, microphthalmia, ptosis, reddened eye, lacrimation, discharge, opacity |
| Nose, mouth, and head | Head tilted, nasal discharge, malocclusion, salivation |
| Respiration | Sneezing, dyspnea, tachypnea, rales |
| Urine | Discoloration, blood in urine, polyuria, anuria |
| Feces | Discoloration, blood in feces, softness/diarrhea |
| Locomotor | Hyperactivity, hypoactivity, coma, ataxia, circling, muscle, tremors, convulsion/seizure, limb paralysis, prostration |

Montgomery, C.A. Jr. (1990). *Cancer Bulletin* 42(4): 230-237.

other measurements) the point when the animals lose more than 20 percent of body weight, or when the body temperature drops more than 4° C (both of which are easily monitored). The magnitude of these changes from normal would also give a maximum score on the Morton and Griffiths proposal, indicating severe negative effects on the animal.

Thus, there is a good body of information developing on selecting more humane endpoints based on clinical observations of the animals in a variety of biomedical research areas. The development and use of observational checklists for scoring the animal's condition in a study provides for an objective basis on which decisions about endpoints can be made. The advantages of checklists are the same here as for airline pilots; nothing is overlooked or taken for granted. The other real advantage is that such checklists help us to improve our observational capabilities, particularly with the smaller laboratory animals where some of the conventional clinical observations made on larger animals are not so useful (e.g., temperature, heart rate, respiratory rate).

Another matter that must be addressed is the frequency with which the observations should be made. It is generally accepted that normal healthy animals should be observed at least once a day (8). However, once an animal is in a potentially critical period with respect to impairment, more frequent observations must be demanded. But what is adequate? Montgomery (12) suggests that at least two observations daily should be made; more often during critical times. The sensitivity and judgement of the animal care committee review process will help determine what is acceptable.

## The Role of the Institution's Animal Care Committee

The role of the animal care committee is vital in establishing the structure that will ensure earlier endpoints are used. With respect to setting and determining humane endpoints, each individual's responsibilities should be clearly defined, and a clear chain of consultation established. This is particularly important for dealing with unanticipated negative effects on the animals in an invasive study.

Some of the questions that might help a protocol review committee ensure that an acceptable, humane endpoint will be in place include:

- What are the scientific justifications for using death or "moribund" as the proposed endpoint?
- What is the expected time course for the animals, from initial treatment to first signs of pain/distress to the death of the animal, based on previous information with the specific model under study?
- When are the effects to the animal expected to be the most severe?
- Has a "checklist of observations," on which the endpoint will be based, been established?
- If the course of the disease and expected signs of the negative effects are unknown, could an initial (pilot) study, under close observation by the laboratory animal veterinary staff, answer these questions?
- Who will monitor the animals (identify all responsible)?
- What will be the frequency of animal observations: a) during the course of the study, and b) during critical times for the animals?
- Do the animal care and technical staff have the training and expertise to monitor the animals adequately?
- What provisions have been made to deal with any animals that show unexpectedly severe signs and symptoms?

## Summary

All of us involved in biomedical research, from the scientist and the animal care staff, to the laboratory animal veterinarians and the animal care committees, have responsibilities for the humane care and use of experimental animals. In establishing humane endpoints, the institutional animal care committee should ensure that acceptable criteria are used by the principal investigator to determine the endpoint. Through the use of observational checklists and animal condition scoring systems, objective, humane endpoints can be identified. Responsibilities for observing and monitoring the animal's condition must be clearly

Table 3. Selected Criteria For Euthanasia of Moribund Animals

- Rapid weight loss (15-20 percent within a few days)
- Extended period of weight loss (progressing to emaciated state)
- Spreading area of alopecia caused by disease
- Rough hair coat, hunched posture, distended abdomen, or lethargy, especially if debilitating or prolonged (3 days)
- Diarrhea, especially if debilitating or prolonged (3 days)
- Coughing, rales, wheezing, and nasal discharge
- Distinct icterus and/or anemia
- Rapid growth of mass or masses, or clinical signs of neoplasia
- Central nervous system signs such as head tilt, tremors, spasticity, seizures, circling, or paralysis or paresis, especially if associated with anorexia
- Frank bleeding from any orifice
- Markedly discolored urine, polyuria, or anuria
- Persistent self-induced trauma
- Lesions interfering with eating or drinking
- Clinical signs of suspected infectious disease requiring necropsy for diagnosis
- Other clinical signs judged by experienced technical staff to be indicative of moribund condition

Montgomery, C.A. Jr. (1990). *Cancer Bulletin* 42(4): 230-237.

delineated. Persons involved in establishing and effecting humane endpoints in invasive experiments are encouraged to present and publish this data to support our efforts at continually refining the animal use practices that occur in biomedical research.

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*Caging cont'd from p.2*

housing on body weight development (20, 29, 4). There was also no evidence found of dominant animals gaining more body weight than their subordinate partners (20, 4). This is not surprising because adequate food sharing is an important condition to qualify a pair as compatible and allow partners to stay together (22).

The stimulatory effect of a cage mate has been evaluated in animals that have lived together as pairs for 1 year or longer. Five investigations have shown that paired companions spend approximately the same amount of time interacting with each other in species-typical ways (figure 1) as do wild animals living in troops (16, 24, 29, 4, 34). This suggests that a compatible cage mate--unlike inanimate toys--maintains its stimulatory effect over time, probably because of its inherent ever-changing nature.

It has been documented that the following research-related procedures can readily be accomplished in pair-housed rhesus macaques:

- capture from cage (28);
- blood collection in the subject's home cage (25);
- tethering (25); and
- headcap implantation (22, 25).

Procedures such as controlled food intake and urine and fecal sampling require the temporary separation of partners with transparent cage-dividing panels, allowing uninterrupted visual, olfactory, and auditory contact.

The findings presented in this report indicate that common arguments in justification of the traditional single-caging of rhesus macaques are often based on subjective assumptions rather than on scientific facts. Providing the animals a social environment in the form of compatible pair--housing arrangements does not unduly jeopardize their safety (no conspicuous aggression problems), health (no conspicuous veterinary problems), physical well-being (no signs of distress), behavioral well-being (species-typical expression of social needs; amelioration of behavioral disorders) and adequate food intake, nor does it interfere with common research procedures. Professional standards stipulate that "unless absolutely essential, primates should not be housed alone in a cage on a long-term basis" (9). The question of what makes it "absolutely essential" to deprive the majority of research rhesus macaques of social contact and social interaction by housing them permanently alone in single cages remains to be answered.

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*Legislation cont'd from p.1*

vice; the Economic Research Service; the National Agricultural Statistics Service; the Rural Housing and Community Development Service; the Rural Business and Cooperative Development Service; the Cooperative State Research, Education, and Extension Service; the Foreign Agricultural Service, except as otherwise provided in this section; and all other offices, administrations, agencies, institutes, units, organizational entities, or components of the Department of Agriculture that are not specifically transferred by this section.

There are transferred to the Secretary of Health and Human Services all functions of the Food and Consumer Service, the Food Safety and Inspection Service, the Animal and Plant Health Inspection Service, the Federal Grain Inspection Service, and the Packers and Stockyards Administration. The Secretary of the Interior shall administer all functions of the Natural Resources Conservation Service, the Forest Service, and the conservation reserve and agricultural conservation programs. The Secretary of State will oversee all functions carried out under the Agricultural Trade Development and Assistance Act of 1954 (7 U.S.C. 1691 et seq.). The Secretary of the Treasury will administer all functions relating to agricultural credit programs, and the Federal Emergency Management Agency will carry out all functions relating to crop insurance.

The last proviso of the matter under the heading "Animal and Plant Health Inspection Service" of title I of the Rural Development, Agriculture, and Related Agencies Appropriations Act, 1986 (Public Law 100-202; 101 Stat. 1329-331; 7 U.S.C. 426c) is amended by striking ": Provided further, That hereafter," and all that follows through "Animal Damage Control activities."

This act and the amendments made by this act shall become effective on October 1, 1996.

- **H.R. 1547 To amend the Animal Welfare Act to strengthen the annual reporting requirements of research facilities conducting animal experimentation or testing and to improve the accountability of animal experimentation programs of the Department of Defense.**

Introduced May 2, 1995, by Robert G. Torricelli (D-NJ) and referred jointly to the Committees on Agriculture and National Security. This act may be cited as the "Animal Experimentation Right to Know Act."

The Congress finds that the Federal Government spends over $5 billion annually on experiments and tests involving animals; reports filed by research facilities with the U.S. Department of Agriculture fail to provide comprehensive annual profiles of laboratory animal use in the United States; the Department of Defense conducts almost $200 million worth of animal testing each year and has not provided detailed information on its experimentation programs and; military researchers receive Federal funding for animal research without being subject to the same review process as other researchers in the scientific community.

Section 3 of this act outlines additional elements of the reporting requirements of the Animal Welfare Act (7 U.S.C. 2143) including: where animals were obtained from, an accurate count of all animals of all species used in animal experimentation testing, including rats, mice, and birds; information regarding the general purpose of the animal experimentation, including whether the animals were used in research, testing, or education. In addition, the Secretary of Agriculture shall develop a system for releasing to the public information on where animals used in research are obtained.

Section 4 amends the Animal Welfare Act (7 U.S.C. 2143) to include requirements for the Department of Defense to provide Congress with an indepth annual report profiling animal research conducted at each Department research facility. To the greatest extent possible the report should be filed as an unclassified document. The report shall include the following: initiatives to promote alternative research methods that would phase out and reduce the use of animals; procedures to prevent unintended duplication; and total cost of animal-based research in comparison to other forms of biological research. The Secretary of Defense shall appoint an ombudsman for animal issues at each research facility of the Department of Defense. This individual would act on any complaints and concerns about the facility's animal care and use program. The Secretary of Defense may submit a waiver form in place of any information regarding animal tests that the Secretary of Defense determines cannot be publicly disclosed for reasons of national security.

An 11-member panel of biomedical and animal care experts shall be appointed by the President to investigate the animal use and care programs of the Department of Defense. The panel shall examine the ethics and regulation of the number and types of animal experiments conducted by the Department of Defense.

- **H. R. 1404 To end the use of steel jaw leghold traps on animals in the United States.**

Introduced April 5, 1995, by Nita Lowey (D-NY) and referred to the Committee on Commerce.

It is the policy of the United States to end the needless maiming and suffering inflicted upon animals through the use of steel jaw leghold traps by prohibiting the shipment in interstate or foreign commerce of such traps, and of articles of fur from animals that were trapped in such traps.

The Secretary [of the Interior] shall pay an amount equal to half of the fine paid to any person who furnishes information which leads to a conviction of a criminal violation of any provision of this act or any regulation issued thereunder. Any officer or employee of the United States or of any State or local government who furnishes information or renders service in the performance of his/her official duties is not eligible for payment under this section.

- **H. R. 1202 To amend title 18, United States Code, to prohibit interstate-connected conduct relating to exotic animals.**

Introduced March 10, 1995, by George Brown (D-CA) and referred to the Committee on the Judiciary. This act may be cited as the "Captive Exotic Animal Protection Act of 1995."

Chapter 3 of title 18, United States Code, is amended by adding at the end the following: whoever, in or affecting interstate or foreign commerce, knowingly transfers, transports, or possesses a confined exotic animal, for the purposes of allowing the killing or injuring of that animal for entertainment or the collection of a trophy, shall be fined under this title or imprisoned not more than one year, or both.

- **S. 555 To amend the Public Health Service Act to consolidate and reauthorize health professions and minority and disadvantaged health education programs, and for other purposes.**

Introduced March 14 (legislative day, March 6), 1995, by Nancy Kassebaum (R-KS) and referred to the Committee on Labor and Human Resources. This act may be cited as the "Health Professions Education Consolidation and Reauthorization Act of 1995."

Section 406 of this act would reduce the amount of money available for construction of regional centers for re-

search on primates from $5 million to $2.5 million.

- **S. 428 To improve the management of land and water for fish and wildlife purposes, and for other purposes.**

Introduced February 16, 1995, by William Roth (R-DE) and referred to the Committee on Environment and Public Works. This act may be cited as the "Fish and Wildlife Coordination Act."

The purposes of this act are to: recognize the vital contribution of wildlife resources to the United States; to provide that wildlife conservation receive equal consideration and be coordinated with other features of water resources development programs through the effectual and harmonious planning, development, maintenance, and coordination of wildlife conservation and rehabilitation.

The Secretary of the Interior may provide assistance to, and cooperate with, Federal, State, and public or private agencies and organizations in: the development, protection, rearing, and stocking of all species of wildlife, wildlife resources, and the habitat of wildlife; controlling losses of wildlife, wildlife resources, and the habitat of wildlife from disease or other causes; minimizing damage from overabundant species; providing public shooting and fishing areas, including easements across public land for access to the land; and carrying out other measures necessary to carry out this act.

- **H. R. 490 To amend the Endangered Species Act of 1973 to ensure that constitutionally protected private property rights are not infringed until adequate protection is afforded by reauthorization of the act, to protect against and compensate for economic losses from critical habitat designation, and for other purposes.**

Introduced January 11, 1995, by Lamar Smith (R-TX) and referred to the Committee on Resources. This act may be cited as the "Farm, Ranch, and Homestead Protection Act of 1995."

The Endangered Species Act of 1973 (16 U.S.C. 1533(a)) is amended by placing a moratorium on the determination of endangered and threatened species, and designation of critical habitat beginning on the date of enactment of this paragraph, and ending on the subsequent reauthorization of this act. If the Secretary [of the Interior] designates habitat of a species to be critical habitat, and if the habitat is located on property that is owned by a person or entity other than the Federal Government., on request of the person or entity, the Secretary shall compensate the person or entity for any loss in market value of the land that results from the designation. Related bills: S. 191, H.R. 571, S.239.

- **S. 267 To establish a system of licensing, reporting, and regulation for vessels of the United States fishing on the high seas, and for other purposes.**

Introduced January 24, 1995, by Ted Stevens (R-AK) and referred to the Committee on Commerce, Science, and Transportation. This act may be cited as the "Fisheries Act of 1995."

The United States, or any agency or official acting on behalf of the United States, may not enter into any international agreement with respect to the conservation and management of living marine resources or the use of the high seas by fishing vessels that would prevent full implementation of the global moratorium on large-scale driftnet fishing on the high seas, as such moratorium is expressed in Resolution 46/215 of the United Nations General Assembly.

The President shall utilize appropriate assets of the Department of Defense, the United States Coast Guard, and other Federal agencies to detect, monitor, and prevent violations of the United Nations moratorium on large-scale driftnet fishing on the high seas for all fisheries under the jurisdiction of the United States and, in the case of fisheries not under the jurisdiction of the United States, to the fullest extent permitted under international law.

- **H. R. 74 To amend the Marine Mammal Protection Act of 1972 to provide for State disapproval of issuance of permits for the taking of marine mammals in protected State waters.**

Introduced January 4, 1995, by Porter Goss (R-FL) and referred to the Committee on Resources. This act may be cited as the "Marine Mammal Capture Reform Act of 1995."

Subsection (d) of section 104 of the Marine Mammal Protection Act of 1972 (16 U.S.C. 1374) is amended by adding the following: the Secretary may not issue a permit under subsection (c)(2) for the taking of any marine mammal from protected State waters for the purpose of public display, if issuance of the permit would be inconsistent with State law; and the Governor of the State in which the taking would occur submits to the Secretary notice of State disapproval of the permit, including an explanation of the reasons for the disapproval, not later than 30

## CLARIFICATION

In *AWIC Newsletter*, Vol.5 #4, Winter 1994-1995, an item on military Institutional Animal Care and Use Committees (IACUCs) appeared on page 8 as a sidebar to the article "Appointing Animal Protectionists to Institutional Animal Care and Use Committees" by Lisa Hara Levin, DVM, and Martin Stephens, PhD, of the Humane Society of the United States. Some concern has been raised over the statement "In fact, the DoD [Department of Defense] Inspector General (IG) found that over one-third of the DoD facilities in question had non-affiliated members (NAMs) who were actually affiliated with the institutions." The DoD report states that at "13 other facilities [of 36 facilities inspected], the non-affiliated member is associated with the military installation where the research facility is located, but has no affiliation with the research industry, such as a military chaplain or a military lawyer." It is the belief of the DoD IG that this meets the intent of the Animal Welfare Act and provides balanced representation to the IACUC.

To obtain copies of the report--*Review of the Use of Animals in Department of Defense Medical Research Facilities*-- or a similar report--*Review of the Use of Animals in Department of Defense Contract Research Facilities*--contact the Department of Defense, Office of the Inspector General, Program Evaluation Directorate, , Room 701, 400 Army Navy Drive, Arlington, VA 22202-2884.

# Grants...

## • Extramural Research Facilities Construction Projects, RFA# RR-95-003

The National Center for Research Resources (NCRR), National Institutes of Health (NIH), has up to $20 million available to make grants to public and nonprofit private entities to expand, remodel, renovate, or alter existing research facilities or construct new research facilities for biomedical and behavioral research and research training.

Inquiries concerning this request for applications are encouraged. Direct inquiries concerning programmatic issues to Dr. Charles Coulter, Director, Research Facilities Improvement Program, NCRR, 5333 Westbard Ave., Room 8A15, Bethesda, MD 20892, Tel: (301) 594-7952, e-mail: charlesc@ep.ncrr.nih.gov

Direct inquiries regarding fiscal matters and requests for application Standard Form 424 and special application instructions to: Katherine Springmann, Office of Grants and Contract Management, NCRR, 5333 Westbard Ave., Room 849, Bethesda, MD 20892, Tel: (301) 594-7955, e-mail: kspringmann@ep.ncrr.nih.gov

## • Research and Demonstration Grants in Occupational Safety and Health, PA Number: PAR-95-041

The purpose of this National Institute for Occupational Safety and Health (NIOSH) grant program is to develop knowledge that can be used in preventing occupational diseases and injuries. Eligible applicants include domestic and foreign non-profit and for-profit organizations, universities, colleges, research institutions, and other State, local, and Federal agencies and private organizations. For fiscal year 1995, the budget for research grants is $9,373,900.

The research grant application form PHS 398 (revised 9/91) is to be used. These forms can be obtained from: Office of Grants Information, Division of Research Grants, National Institutes of Health, 5333 Westbard Avenue, Room 449, Bethesda, MD 20892, Tel: (301) 594-7248.

Detailed information can be found in the NIH Guide to Grants and Contracts, Volume 24, Number 11, March 24, 1995.

Direct inquiries regarding technical or programmatic issues to: Roy Fleming, NIOSH, Centers for Disease Control and Prevention (CDCP), 1600 Clifton Road NE, Building 1, Room 3053, Mail Stop D-30, Atlanta, GA 30333, Tel: (404) 639-3343, Fax: (404) 639-2196, or e-mail: rmf2@niood1.em.cdc.gov

Direct inquiries regarding fiscal matters to: Georgia Jang, Grants Management Branch, PGO, CDCP, 255 E. Paces Ferry Road NE, Room 321, Mail Stop E-13, Atlanta, GA 30305, Tel: (404) 842-6814, Fax: (404) 842-6613, e-mail: glj2@opspgol.em.cdc.gov

## • Charles A. Lindbergh Fund

These grants of up to $10,580 (the cost of "The Spirit of St. Louis") are awarded to individuals for research projects that contribute toward the achievement of a better balance between technology and the human and natural environment. Areas of interest include biomedical research and health and population science. The deadline is mid-June 1995. For more information contact the Fund at 708 South 3rd St., Suite 110, Minneapolis, MN 55415, Tel: (612) 338-1703.

## • Foundation for Anesthesia Education and Research

Research starter grants of $15,000 are made to provide initial support to beginning U.S. investigators who will seek further support for the continuation of a research project in anesthesiology. Funds are not intended to supplement ongoing projects, nor are they awarded for stipend support. The sponsoring department must provide matching funds. The deadline is July 31, 1995. For more information contact the Foundation at Charleston Building, Mayo Clinic, 200 First St. , S.W., Rochester, MN 55905, Tel: (507) 266-6866.

## • American Fund for Alternatives to Animal Research (AFAAR)

Research grant awards of up to $100,000 are made in support of programs that would reduce or replace the use of animals in research. No deadlines. For more information contact: AFAAR, 175 West 12th St., Suite 16G, New York, NY 10011, Tel: (212) 989-8073.

## • Eppley Foundation for Research

One-year awards of up to $30,000 are made to Ph.D. scientists in support of advanced research in the physical and biological sciences, particularly in areas where Federal support is not available. Deadlines are February 1, May 1, August 1, and November 1. For more information contact the Foundation at 575 Lexington Ave., New York, NY 10022.

## • International Foundation for Ethical Research (IFER)

Applied and basic research on alternatives to the use of live animals in research, testing, and teaching is supported. Awards average $25,000 per year and are renewable. The deadline for preproposals is July 1, 1995. For more information contact: IFER, Suite 1552, 53 West Jackson Blvd., Chicago, IL 60604, Tel: (312) 427-6025 or (800) 888-6287, Fax: (312) 427-6524.

## • Alternatives in Animal Efficacy and Safety Testing

The Procter & Gamble Company has announced a call for research proposals for alternatives in animal efficacy and safety testing. Proposals will be accepted from any academic or nonprofit medical institution. Preference will be given to proposals likely to result in important reductions in usage of or distress to animals in testing areas of mutual interest to the scientist and Procter & Gamble. The program will provide funding of up to a maximum of $50,000 per year for a period of up to 3 years for each award. Deadline for applications is September 1, 1995. For further information contact: Animal Alternatives Research Program, Miami Valley Laboratories, Procter & Gamble Company, P.O. Box 398707, Cincinnati, OH 45239-8707, Fax: (513) 627-1153. ■

# Announcements...

## • Comprehensive Review of Laboratory Animal Medicine

This 2-day continuing education seminar will be held at the Uniformed Services University of the Health Sciences in Bethesda, MD, on August 11-12, 1995. The course is open to all interested people but is intended for veterinarians preparing for certification examinations given by the American College of Laboratory Animal Medicine. The course is being cosponsored by the C.L. Davis DVM Foundation, the Armed Forces Institute of Pathology, and the Uniformed Services University of the Health Sciences.

The topics to be covered include: alternatives, informational resources, the NIH grant process, bacteriology, virology, histology, pathology, surgery, and unusual species.

For more information contact Marlene Cole, D.V.M., at (301) 295-3814 or Gaye Ruble, D.V.M., at (202) 782-2231.

## • AAV Expands Annual Conference Program

The Association of Avian Veterinarians' (AAV) 16th Annual Conference & Expo will be held in Philadelphia, Pennsylvania, August 28-September 2, 1995, at the Adam's Mark Hotel.

Leading off 6 days of educational choices will be "Effects of Oil on Wildlife," the only Occupational Safety and Health Administration-approved oil spill response training course. "Foundations in Avian Medicine," the single 1995 preparatory course for the American Board of Veterinary Practitioners avian-specialty exam, will provide information essential for the practice of avian medicine. The course "Introduction to Clinical Avian Medicine" will teach principles needed to add avian medicine to veterinarians' practices.

The main conference will also include a 1-day symposium on conservation issues ranging from medical management of wildlife to conservation of a species. The technicians' program will focus on avian reproductive and digestive systems to help technicians become more knowledgeable and effective assistants.

New in 1995 will be master classes. Topics include "How I Approach Respiratory Disease" and "How I Approach Parrots with High White Counts." New practical laboratories will include ratite and parasitology topics.

Receive a complimentary calendar and registration brochure by contacting the AAV Conference Office at: 2121 So. Oneida St., Suite 325, Denver, CO 80224-2552, Tel: (303) 756-8380, Fax: (303) 759-8861.

## • TEHIP Gopher Service

Produced by the U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, The National Library of Medicine, Division of Specialized Information Services, Toxicology and Environmental Health Information Program (TEHIP), the TEHIP Gopher Service is now available as a module of the National Library of Medicine gopher. The address is gopher.nlm.nih.gov

The main menu of the TEHIP gopher includes:

- Searching NLM TEHIP databases;
- Factsheets, database documentation and training materials;
- Meetings and training calendar;
- Agency for Toxic Substances and Disease Registry (ATSDR)
- Case studies in environmental medicine;
- Alternatives to animal testing bibliographies (full text online); and
- Other resources relevant to toxicology and environmental health (including direct connections to these resources through gopher).

Online search service to MEDLARS (MEDical Literature Analysis and Retrieval System), including the chemical and toxicological databases, is available to users with valid MEDLARS search codes. Command language searching and TOXNET search menus are available through the TEHIP gopher. Grateful Med can be used with dial-up and telnet access. For additional information, the e-mail address is: tehip@teh.nlm.nih.gov

## • Computational Toxicity Assessment System Available

TOPKAT 3.0 is a computational toxicity assessment system that evaluates test compounds by predicting rat oral $LD_{50}$, rat oral chronic LOAEL (lowest observed adverse effect level), Ames mutagenicity, rodent carcinogenicity (male rat and female mouse), and rat oral Developmental Toxicity Potential (DTP). The evaluation is based solely from the chemical structure of the compound. TOPKAT 3.0 differs from previous versions by providing automatic validation, assessment of a larger variety of structures, reduction of processing time, and elimination of subjectivity in the assessment process. For more information contact: Health Designs, Inc., 183 East Main St., Rochester, NY 14604, Tel: (716) 546-1464, Fax: (716) 546-3411.

## • Project Breed Directories

Project Breed (Breed Rescue Efforts & Education) is an organization that specializes in giving pet owners a means of finding homes for pets they can no longer keep and helps others find the perfect breed of dog or other pet for their lifestyle. *Project BREED Yellow Book Edition* lists 1,555 rescue contacts for 72 breeds of dogs, along with profiles of the dogs' common traits and physical characteristics. *Project BREED Red Book Edition* lists 1,400 rescue contacts for 32 additional breeds of dogs as well as rabbits, bats, and ferrets. It also includes a list of national hotlines. For ordering information, contact: Project BREED, Inc., 18707 Curry Powder La., Germantown, MD 20874-2014.

## • Whale Rehabilitation Video

In November 1993, a young pygmy sperm whale was stranded along New Jersey's coast. Brought to the National Aquarium in Baltimore, her illness was a mystery until endoscopy revealed plastic in her stomach. *Saving Inky* is the story of the whale's rescue, rehabilitation, and successful release into the Atlantic Ocean after 6 months of human care. Along the way, new information was gained about the behavior and acoustics of this little known species. This 15 1/2-minute video is geared to general audiences. It complements studies in whales, marine debris, and general conservation. Proceeds from video sales benefit the aquarium's Marine Animal Rescue Program. To order, send $12.95 to the National Aquarium in Baltimore, Marine Animal Rescue Program, Pier 3, 501 East Pratt St., Baltimore, MD 21202.

## • Master of Science in Animals and Public Policy

The Tufts Center for Animals and Public Policy now offers a Master of Science in Animals and Public Policy degree program. This is the only graduate degree in the United States in the field of human/animal relationships and related public policies. It is a full-time program that is expected to take 12 (but no more than 15) months to complete. For an applica-

tion of admission write to The Center for Animals & Public Policy, Tufts University, School of Veterinary Medicine, 200 Westboro Rd., N. Grafton, MA 01536. To discuss the program or arrange an interview call (508) 839-7991 or e-mail: dpease@opal.tufts.edu

## SCAW ANNOUNCEMENTS

### • Anesthesia, Analgesia, and Surgery Proceedings

For additional information about the items listed below, contact: SCAW, Golden Triangle Building One, 7833 Walker Drive, Suite 340, Greenbelt, MD 20770, Tel: (301) 345-3500, Fax: (301) 345-3503.

The Scientists Center for Animal Welfare (SCAW) has published the proceedings of a SCAW-sponsored conference held on May 12-13, 1994, in Atlanta, Georgia, on "Research Animal Anesthesia, Analgesia and Surgery." The proceedings were edited by Alison C. Smith, D.V.M., and M. Michael Swindle, D.V.M.

Some of the topics covered are U.S. Department of Agriculture, National Institutes of Health, and American Association for the Accreditation of Laboratory Animal Care (AAALAC) requirements for surgical programs; American Society of Laboratory Animal Practitioners' guidelines; surgical training and personnel qualifications; laparoscopic surgery courses; ethics and science of xenotransplantation and xenoperfusion; and recognizing pain and distress in research animals. The price of the publication is $55.

### • Fish, Amphibians, and Reptiles in Research Meeting

SCAW and the Canadian Council on Animal Care will sponsor a 2-day conference on the care and use of fish, amphibians, and reptiles in research. Sessions will include regulations, relief of pain, medicine, animal models, housing, handling, and field research. The meeting will be held September 28-29, 1995, in Toronto, Canada.

### • SCAW Solicits Nominations for the 1995 Annual Harry C. Rowsell Award

Nominations are now being sought for the 1995 Harry C. Rowsell Award. An awards committee will solicit nominations and then choose the recipient based on the nominee's responsible and humane use of animals and his/her contributions toward science. The 1995 award will be presented in conjunction with the national American Association for Laboratory Animal Science (AALAS) meeting in October 1995 in Baltimore, Maryland. To nominate yourself or a colleague, please send a description of the work you or the colleague have done that you think meets the dual goals of the award: good science and the humane treatment of animals. This should be limited to one single-spaced, 8 1/2" x 11" page. Additional materials such as a curriculum vitae and project description may be included. Send or fax the materials to the above address. ■

## CORRECTION

In the last issue of *The Animal Welfare Information Center Newsletter*, Volume 5(4), Winter 1994/95, the e-mail address for the *Zoological E-mail Directory* described on page 18 is incorrect. The correct address is: tpolk@dialin.ind.net

## CAAT SEEKS REFINEMENT INFORMATION

The Johns Hopkins Center for Alternatives to Animal Testing (CAAT) is dedicated to fostering the development of scientifically acceptable in vitro technologies and other alternatives for use in the development and safety evaluation of commercial and therapeutic products. Alternatives are defined as methods which reduce animal use, replace whole animal tests, or refine existing tests by minimizing animal distress.

CAAT is in the process of compiling data on the forgotten "R," refinement. We are soliciting descriptions of refinement methods, developed or established through personal laboratory experience, which decrease animal stress or discomfort. We intend to publish a collection of refinement methods for distribution to the scientific community. Our goal is twofold: 1) to expose scientists to refinement methods, and 2) to provide a mechanism to encourage scientists who are already interested in alternatives to use identified refinement methods. All contributors will be acknowledged if their data/methods are included in the resulting publication.

Please review the following questions to determine if your work can be recognized as a refinement alternative. If you are able to answer yes to any of these questions, your experience in the laboratory most likely involved a refinement method suitable for inclusion in our study.

- Have you developed, or determined through experience, a technique or procedure (e.g., surgical) that decreases animal stress or discomfort?
- Have you developed, or determined through experience, a handling or housing method that decreases animal stress or discomfort?
- Have you used, or determined through experience, drugs (e.g., less irritating upon infusion/injection) that decrease animal stress or discomfort?

Please provide a summary of the refinement alternative that you have found to decrease animal discomfort or distress based on your personal experience with laboratory animals. In addition, please discuss the perceived impact of your refinement methods on the welfare of laboratory animals. We ask that you also include answers to the following questions in your report:

- How do you determine that an animal is in pain ?
- How do you determine that an animal is in distress (non-pain induced) ?
- Which of the animal handling or experimental procedures that you routinely use cause you most concern regarding their potential for causing animal pain or distress? (If you would prefer that your answer to this question be treated anonymously in the report, please indicate.)

Send your summary to REFINE, Johns Hopkins Center for Alternatives to Animal Testing, 111 Market Place, Suite 840, Baltimore, MD 21202-6709. Tel: (410) 223-1693, Fax: (410) 223-1603, or e-mail: caat@phnet.jhu.edu

*subject: Refine*

Please be sure to include your telephone/fax number or e-mail address so that we may contact you if we need further information.

# User Fees Coming to APHIS, REAC

*by*
*Richard Crawford, D.V.M., Animal Welfare Information Center, USDA*

Ever since the Animal Welfare Act (AWA) was amended in 1970 and 1976, certain types of facilities have been required to register and other facilities have been required to be licensed under the act. Registration applies to research facilities, carriers, intermediate handlers, and some exhibitors. There is no fee associated with registration. Licensing applies to dealers and exhibitors and requires that they pay the Government fees assessed on a graduated basis.

All this is about to change. As is happening with many Federal agencies, the Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture, which includes Regulatory Enforcement and Animal Care (REAC), will soon be implementing **user fees** for all registrants and licensees under the AWA. At the present time user fees are expected to be implemented in fiscal year (FY) 1996, which starts October 1, 1995.

Several things must happen before this becomes a reality, however. First, Congress must pass legislation authorizing APHIS to implement user fees for this activity. Second, a schedule of user fees must be developed which considers such things as the size and type of facility or business so fees are as reasonable and equitable as possible. Third, an implementation system must be developed to assess and collect user fees.

While many questions remain to be answered before any decisions are made, REAC is busy exploring all possible options in the development of user fees. Whether user fees start in FY 1996, or later, three things are certain: (1) given the present Federal budget situation, user fees are going to be put in place for entities registered or licensed under the AWA in the near future; (2) registrants who previously paid no fees under the AWA will now be required to pay their appropriate user fee; and (3) licensees who have been paying license fees for years will most likely see an increase in the fees due. User fees will probably be adjusted up or down each year, depending on the receipts from the previous year.

When authorizing legislation is passed by Congress and the final decisions are made on user fees related to the AWA, APHIS will publicize the information in the *Animal Welfare Information Center Newsletter.* ■

## DR. RICHARD CRAWFORD RETIRES FROM REAC, JOINS AWIC!

The Animal Welfare Information Center is pleased to announce that Richard Crawford, D.V.M., recently retired as the Assistant Deputy Administrator for Animal Care, U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Regulatory Enforcement and Animal Care (REAC), has joined the staff on a part-time basis. Throughout his 26-year career with USDA, Dr. Crawford has been instrumental in enforcing or strengthening the regulations of the Animal Welfare Act. As an APHIS inspector in the 1970's, he contributed to the Hollywood film and television industry, overseeing the care and treatment of animals during the filming of *Swiss Family Robinson, Benji,* and the *Sonny and Cher Show*, among others. However, his most significant achievements were his contributions to the development and administration of the Animal Welfare Act regulations of 1976, 1985, and 1990, the Horse Protection Act regulations of 1976, and the marine mammal regulations of 1979 and 1984.

In an interview, published in *Inside APHIS* (May/June 1994), reflecting on his years with REAC, Dr. Crawford commented, "There was a time when I had to threaten researchers with shutting them down and padlocking their facility with a warrant from the local authorities if they violated acceptable animal welfare standards. Today, human values of comfort and care are applied to animals. This way of thinking has established a better environment for animals in general."

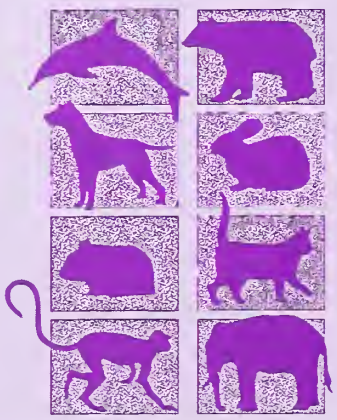
Dr. Crawford's extensive knowledge of the Animal Welfare Act and other regulations relating to animal welfare makes him a welcome addition to the AWIC staff. We hope that you will take advantage of his expertise.

## REAC HAS MOVED!

The addresses and phone numbers for the headquarter's office of the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Regulatory Enforcement and Animal Care (REAC) have been changed to:

**U.S. Department of Agriculture, APHIS**
**Regulatory Enforcement and Animal Care**
**Animal Care**
**4700 River Road, Unit 84**
**Riverdale, MD 20737-1234**
**Tel: (301) 734-8684**

**U.S. Department of Agriculture, APHIS**
**Regulatory Enforcement and Animal Care**
**Regulatory Enforcement**
**4700 River Road, Unit 85**
**Riverdale, MD 20737-1234**
**Tel: (301) 734-7833**



# Upcoming Meetings

**Ethical Issues of Animal Research**, June 24-29, 1995. Washington, DC. Contact: (202) 687-6833 - Moheba Hanif or e-mail: hanifm@guvax.georgetown.edu

**American Dairy Science Association Annual Meeting**, June 25-28, 1995. Ithaca, NY. Contact: (217) 356-3182 - Molly Kelley.

**11th International Council for Laboratory Animal Science (ICLAS) and 25th SCAN-LAS Jubilee Conference on "Frontiers in Laboratory Animal Science,"** July 2-7, 1995. Helsinki, Finland. Contact: +358-0-191 7281, Fax: +358-0-191 7284 - Dr. Tarja Kohila, University of Helsinki, Laboratory Animal Center, POB 17 (Arkadiankatu 7), FIN-00014 University of Helsinki, Finland.

**International Congress of Toxicology - VII**, July 2-6, 1995. Seattle, WA. Contact: (913) 345-1990 - Juda Hill.

**National Association of Federal Veterinarians**, July 8-12, 1995. Pittsburgh, PA. Contact: (202) 289-6334.

**American Veterinary Medical Association**, July 8-12, 1995. Pittsburgh, PA. Contact: (708) 605-8070

**Animal Behavior Society**, July 8-13, 1995. Lincoln, NE. Contact: (402) 472-9073 or e-mail: ABS95@niko.unl.edu

**American Society of Animal Science Annual Meeting**, July 25-28, 1995. Orlando, FL. Contact: (217) 356-3182 - Molly E. Kelley.

**9th International Congress of Immunology**, July 23-29, 1995. San Francisco, CA. Contact: (301) 530-7010 - Nancy Sledge.

**Association of Avian Veterinarians**, August 29-September 2, 1995. Philadelphia, PA. Contact: (303) 756-8380,Fax: (303) 759-8861 or e-mail: sylviaklnc@aol.com

**Association of Zoos and Aquariums**, September 15-19, 1995. Seattle, WA. Contact: (301) 907-7777.

**American Association for Laboratory Animal Science**, October 15-19, 1995. Baltimore, MD. Contact: (901) 754-8620.

**International Symposium on Swine in Biomedical Research**, October 22-25, 1995. College Park, MD. Contact: Fax: (612) 624-7284 or e-mail: pigmodel@gold.tc.umn.edu

# Electronic Documents Update from AWIC

The Animal Welfare Information Center (AWIC) is compiling an electronic library of full-text animal welfare information. In response to the demand from our patrons for electronic animal welfare legislation and other related documents, we have compiled this collection of documents in WordPerfect 5.1 and ASCII (formatted for DOS systems). As other laws or policies become available electronically, the files are updated. We welcome any suggestions or contributions. Documents already in WordPerfect or ASCII format are greatly appreciated.

Each disk contains specific types of documents. **Volume I** contains U.S. Department of Agriculture regulations and public laws that relate to the Animal Welfare Act. **Volume II** contains National Institutes of Health public laws, regulations, manuals, and policies relating to animal care and use. **Volume III** contains legislation and policy from Federal agencies, such as the Food and Drug Administration, and from professional groups such as the American Veterinary Medical Association. **Volume IV** contains useful full-text animal care monographs and articles, and **Volume V** contains bibliographies and resource guides.

Requestors of the electronic material must provide one formatted, 3 1/2", **high-density** floppy disk for each volume. To request the full set, please send **five (5)** disks. Please specify the preferred format (WordPerfect or ASCII). Patrons who have received the disks in the past may request an update by sending a new disk and requesting specific files. For electronic downloading of these files, patrons are directed to the NETVET gopher (gopher://vetinfo.wustl.edu). For more information about contributing to or receiving information on the electronic documents project, contact AWIC, 5th Floor, National Agricultural Library, 10301 Baltimore Blvd., Beltsville, MD 20705. Tel: (301) 504-6212, Fax: (301) 504-7125, or e-mail: awic@nalusda.gov

New files include:

- *National Institutes of Health: Guidelines for Research Involving Recombinant DNA Molecules*
- *Institutional Administrator's Manual for Laboratory Animal Care and Use* (NIH Publication No. 88-2959)
- *Institutional Animal Care and Use Committee Guidebook* (NIH Publication No. 92-3415)
- *National Institutes of Health: Plan for the Use of Animals in Research*
- *Good Laboratory Practice: Minor Amendment* (toe clipping for animal identification)
- *Essentials for Animal Research: A Primer for Research Personnel* (Second edition, 1995) by B.T. Bennett, M.J. Brown, and J.C. Schofield

# New Bibliographies and Publications from AWIC

- **Anesthesia and Analgesia for Companion and Laboratory Animals (QB 95-12)**
- **Anesthesia and Analgesia for Farm Animals (QB 95-13)**
- **Animal Models of Disease (QB 95-14)**
- **Animal Welfare Legislation, Regulations, and Guidelines (Also includes international Codes of Practice) (QB 95-18)**
- **Essentials for Animal Research. A Primer for Research Personnel, 2nd edition**
- **Housing, Husbandry, and Welfare of Beef Cattle (QB 95-16)**
- **Housing, Husbandry, and Welfare of Dairy Cattle (QB 95-15)**
- **Housing, Husbandry, and Welfare of Poultry (QB 95-05)**
- **Housing, Husbandry, and Welfare of Swine (QB 95-06)**
- **Laboratory Animal Facilities and Management (QB 95-17)**
- **Training Materials for Animal Facility Personnel (QB 95-08)**

# AWIC Workshop

## "Meeting the Information Requirements of the Animal Welfare Act"

The Animal Welfare Information Center (AWIC) of the U.S. Department of Agriculture, Agricultural Research Service, National Agricultural Library (NAL) has developed a 2-day workshop for individuals who are responsible for providing information to meet the requirements of the Animal Welfare Act.

The act requires that investigators provide Institutional Animal Care and Use Committees (IACUC) with documentation demonstrating that a thorough literature search was conducted regarding alternatives. An alternative is any procedure which results in the reduction in the numbers of animals used, refinement of techniques, or replacement of animals.

The objectives of the workshop are to provide:

- an overview of the Animal Welfare Act and the information requirements of the act.
- a review of the alternatives concept.
- a comprehensive introduction to NAL, AWIC, and other organizations.
- instruction on the use of existing information databases/networks.
- on-line database searching experience to answer questions relevant to your needs.

This workshop is targeted for principal investigators, members of IACUCs, information providers, administrators of animal use programs, and veterinarians. All participants will receive a resource manual.

Workshops will be held on June 22-23, September 28-29, and December 7-8, 1995. Each workshop will be limited to 16 persons. There is currently no fee for the workshop.

For more information, contact AWIC at Tel: (301) 504-6212, Fax: (301) 504-7125, e-mail: awic@nalusda.gov or write to:
*Animal Welfare Information Center, National Agricultural Library, 10301 Baltimore Boulevard, Beltsville, MD 20705-2351*



United States Department of Agriculture
Agricultural Research Service
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